

**ANNEX J**  
**CHEMICAL AGENT WORKER POPULATION LIMIT**  
**EXCURSION PLAN**

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**U.S. Army  
Chemical Materials Agency**

**Project Manager for  
Non-Stockpile Chemical Materiel**

**Chemical Agent Worker Population Limit  
Excursion Plan for the Explosive  
Destruction System at Dugway Proving  
Ground**

**Final  
Revision 2**

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**March 2009**

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**TABLE OF CONTENTS**

<b>Section/Paragraph</b>	<b>Title</b>	<b>Page</b>
LIST OF TABLES .....		J-i
1	PURPOSE .....	J-1
2	TERMS .....	J-1
3	OPERATING PROCEDURES .....	J-2
3.1	Notice of WPL Excursion/Emergency Response .....	J-2
3.2	Investigation of WPL Excursions .....	J-4
APPENDIX J-1	NOTICE OF EXCURSION AND NOTIFICATION OF RESTRICTED AREA	

**LIST OF TABLES**

<b>Table</b>	<b>Title</b>	<b>Page</b>
J-1	Applicable WPLs for Chemical Agents .....	J-1

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## 1. PURPOSE

The purpose of this plan is to provide information that will be used to investigate, identify, and control sources of identified excursions of chemical agents above the worker population limit (WPL) in areas where excursions are not expected during Explosive Destruction System (EDS) operations at Dugway Proving Ground (DPG).

## 2. TERMS

**WPL.** The WPL is the maximum allowable 8-hour time-weighted average concentration of chemical agent that an unmasked worker could be exposed to for an 8-hour workday and 40-hour week for 30 years without adverse effect. **Table J-1** contains the applicable WPLs for the chemical agent of concern during EDS at DPG operations.

Table J-1. Applicable WPLs for Chemical Agents

Chemical Agent	8-Hour Worker Population Limit <sup>a</sup> (mg/m <sup>3</sup> )
HD, HT <sup>b</sup>	0.0004
GB	0.00003
VX	0.000001
GD	0.00003

Notes:

<sup>a</sup> CMA *Programmatic Monitoring Concept Plan*, June 2004.

<sup>b</sup> The mixture HT shall be monitored for HD.

GB = sarin  
GD = soman  
HD = distilled sulfur mustard  
HT = thickened mustard  
mg/m<sup>3</sup> = milligram per cubic meter  
VX = O-ethyl S-(2-diisopropylaminoethyl)methylphosphonothioate

*WPL Excursion.* A WPL excursion is defined as WPL readings above 1.0 WPL that do not coincide with near real-time (NRT) monitoring greater than or equal to the NRT alarm level.

*WPL Excursion Response.* This WPL excursion response is defined primarily as a medical response when an airborne concentration of chemical agent is greater than the established WPL. It does not necessitate emergency response or an immediate threat to life, but will result in direction given by a competent medical authority (DPG-U.S. Army Health Clinic or other appropriate medical support) to determine any health risks or potential adverse effects. However, a WPL excursion greater than the short-term exposure limit (STEL) is considered a chemical agent event and requires that the appropriate emergency response be initiated.

### **3. OPERATING PROCEDURES**

#### **3.1 Notice of WPL Excursion/Emergency Response**

If air monitoring results indicate an excursion of chemical agent above the WPL in a location where an excursion was not expected (that is, outside of engineering controls), the following steps will be followed:

- a. The monitoring team lead will immediately notify the Safety and Health Officer (SHO) of the WPL excursion.
- b. The SHO will ensure that the area(s) involved in the excursion will be promptly restricted, transients will be limited, and personal protective equipment (PPE) levels will be increased until the cause is evaluated and corrected. See **Appendix J-1** for an example of a Notice of Restricted Area.

- c. The SHO will notify the EDS System Manager and provide the following information to the DPG Emergency Operations Center (911 from a government phone):
- Location of the excursion
  - Period of time during which excursion occurred
  - Name of chemical agent observed
  - WPL for chemical agent monitored in milligrams per cubic meter ( $\text{mg}/\text{m}^3$ )
  - Amount of exceedance in  $\text{mg}/\text{m}^3$
  - Statement of proposed action to limit future excursions
  - Safety point of contact (POC) with phone number.
- d. The notice of excursion will be posted as soon as possible after the determination of the excursion in a manner that informs all possible affected personnel of the excursion. The notice will be posted for at least 3 days or until the cause of the excursion has been corrected. The following information will be posted:
- Location of the excursion
  - Period of time during which excursion occurred
  - Name of chemical agent observed



- WPL for chemical agent monitored in  $\text{mg}/\text{m}^3$
- Amount of exceedance in  $\text{mg}/\text{m}^3$
- Statement of proposed action to limit future excursions
- Safety POC with phone number
- Medical POC (Ditto Aid Station) with phone number
- Statement concerning the health significance of the excursion, with concurrence of the competent medical authority.

**Appendix J-1** contains an example of a Notice of Excursion.

### **3.2 Investigation of WPL Excursions**

Investigations of all WPL excursions will be performed to determine the cause, control the source of the excursion, and prevent future occurrences. Techniques for controlling excursions might include conducting additional monitoring, reviewing operational procedures, evaluating engineering controls, and/or other procedures as determined by the SHO and EDS System Manager. All information relevant to the investigation will be provided to the DPG Clinic.

Instances of excursions will be reviewed or analyzed at least annually to determine any trends.

**APPENDIX J-1**  
**NOTICE OF EXCURSION AND**  
**NOTIFICATION OF RESTRICTED AREA**

# NOTICE OF EXCURSION

Location: \_\_\_\_\_ Period of time excursion occurred: \_\_\_\_\_

Chemical agent observed: \_\_\_\_\_

WPL for chemical agent (mg/m<sup>3</sup>): \_\_\_\_\_

Amount Detected (mg/m<sup>3</sup>): \_\_\_\_\_

Amount of exceedance (mg/m<sup>3</sup>): \_\_\_\_\_

Statement of proposed action to limit future excursions:

Medical POC: \_\_\_\_\_ Phone number: \_\_\_\_\_  
and statement of health significance of excursion (including CMA concurrence):

Safety POC: \_\_\_\_\_ Phone number: \_\_\_\_\_

# **RESTRICTED AREA**

## **Entrance Requirements:**